Table of Contents: Volume 3 (1993)

Number 1

Special Issue: Wavelet Theory and Application
Guest Editor: Andrew Laine

Introduction ..... *Andrew Laine* 5

Local Cosine Transform—A Method for the Reduction of the Blocking Effect in JPEG .... *Gil Aharoni, Amir Averbuch, R. Coifman, and Moshe Israeli* 7

Local Enhancement of Compressed Images .... *Björn D. Jawerth, Michael L. Hilton, and Terrance L. Huntsberger* 39

Image Analysis by Wavelet-Type Transforms: Group Theoretic Approach..... ..... *Joseph Segman and Yehoshua Y. Zeevi* 51

Two Ways to Incorporate Scale in the Heisenberg Group with an Intertwining Operator.... ..... *Joseph Segman and Walter Schempp* 79

The Generalized Matrix Product and the Wavelet Transform..... ..... *Huixia Zhu and Gerhard X. Ritter* 95

Construction of Wavelet Decompositions for Tomographic Images .... *F. Peyrin, M. Zaim, and R. Goutte* 105

A Wavelet Regularization Method for Diffuse Radar-Target Imaging and Speckle-Noise Reduction ..... *Pierre Moulin* 123

Number 2

Inferring 3D Structure from Image Motion: The Constraint of Poinsot Motion .... *Bruce M. Bennett, Donald D. Hoffman, Jin S. Kim, and Scott N. Richman* 143

Mean-Field Phase Transitions and Correlations Functions for Gibbs Random Fields..... ..... *Ibrahim M. Elfadel and Alan L. Yuille* 167

Optimization Approach to Dichromatic Images ..... *Mark S. Drew* 187

On the Flatness of Digital Hyperplanes ..... *Peter Veelaert* 205

Number 3

A Feature Space for Edgels in Images with Landmarks ..... *Fred L. Bookstein and William D.K. Green* 231

Application of the Finite-Element Method for the Forward and Inverse Models in Optical Tomography ..... *M. Schweiger, S.R. Arridge, and D.T. Delpy* 263

Feature Extraction in Two-Dimensional Short-Axis Echocardiographic Images ..... *David C. Wilson, Edward A. Geiser, and Jun-Hua Li* 285

Invited Paper
Linear Granulometric Moments of Noisy Binary Images ..... *Bruno Bettoli and Edward R. Dougherty* 299

Number 4

Cartesian Differential Invariants in Scale-Space ..... *L.M.J. Florack, B.M. ter Haar Romeny, J.J. Koenderink, and M.A. Viergever* 327

Discrete Derivative Approximations with Scale-Space Properties: A Basis for Low-Level Feature Extraction ..... *Tony Lindeberg* 349

FDGE: A Forward-Difference Grid Engine and Its Application in Rendering Algebraic Surfaces in Parallel ..... *Panos E. Livadas* 377